



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/588,948

08/10/2006

Heiko Urtel

12810-00340-US1

2462

30678

7590

06/13/2011

CONNOLLY BOVE LODGE & HUTZ LLP  
1875 EYE STREET, N.W.  
SUITE 1100  
WASHINGTON, DC 20006

EXAMINER

NGUYEN, COLETTE B

ART UNIT

PAPER NUMBER

1732

MAIL DATE

DELIVERY MODE

06/13/2011

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

1                                   RECORD OF THE ORAL HEARING  
2                                   UNITED STATES PATENT AND TRADEMARK OFFICE

3                                   \_\_\_\_\_  
4                                   BEFORE THE BOARD OF PATENT APPEALS  
5                                   AND INTERFERENCES  
6                                   \_\_\_\_\_

7  
8                                   *Ex parte* HEIKO URTEL, MARKUS ROSCH,  
9                                   *and* ANDREA HAUNERT  
10                                  \_\_\_\_\_

11  
12                                  Appeal 2010-007267  
13                                  Application 10/588,948  
14                                  Technology Center 1700  
15                                  \_\_\_\_\_

16                                  Oral Hearing Held: Wednesday, May 11, 2011  
17                                  \_\_\_\_\_

18  
19                                  Before ADRIENE L. HANLON, LINDA M. GAUDETTE and  
20                                  KAREN M. HASTINGS, Administrative Patent Judges  
21

22                                  ON BEHALF OF THE APPELLANT:

23                                  GEORG M. HASSELMANN, ESQUIRE  
24                                  Connolly Bove Lodge & Hutz, LLP  
25                                  1875 Eye Street, NW  
26                                  Suite 1100  
27                                  Washington, D.C. 20006  
28                                  (202) 572-0306

1                   *The above-entitled matter came on for hearing*  
2                   *Wednesday, May 11, 2010, commencing at 9:05 a.m.,*  
3                   *at the U.S. Patent and Trademark Office, 600 Dulany*  
4                   *Street, Alexandria, Virginia, before Ashorethea*  
5                   *Cleveland, Notary Public.*  
6

7                   JUDGE HANLON: When you're ready, you may begin.

8                   MR. HASSELMANN: Okay. May it please the Board. Briefly  
9                   there are two issues which we would like to discuss in this case.

10                  First, it's our understanding that the terminal disclaimer has  
11                  been accepted in this application and the obviousness patenting rejection  
12                  should have been overcome by this. It wasn't entered by the time of the  
13                  Examiner's amendment was mailed but it's our understanding this issue has  
14                  been resolved.

15                  I would like now to go over to the rejection over the prior art in  
16                  the pending application. Basically, to recap, what is claimed is a process for  
17                  preparing optically active alcohols with the specific combination of catalyst  
18                  materials and processing conditions.

19                  It is our position that the prior art in particular US patent  
20                  49855722, Kitson. That's what teach the teachers. The Examiner alluded to  
21                  this citation; and also, that the Examiner failed to take into account the  
22                  secondary reference which US patent number 57314792, Antons, teaches  
23                  away from the proposed modification.

24                  Applicants have discovered a process to prepare these optically  
25                  active alcohols on the industrial scale. They are important intermediates for  
26                  example pharmaceutical products. Laboratory techniques can be applied on  
27                  this scale but the use of the catalyst that actually retains the optical activity  
28                  of the starting material is key to the process.

29                  For example, it's discussed in the reference to Antons that under  
30                  certain conditions optically active compounds racemize and so you cannot  
31                  produce optically active compounds under this condition.

1 Further, applicants discovered that by the use of ruthenium the  
2 starting materials have a tendency to decarboxylate. So, they release the "O"  
3 which not only causes a pressure increase in the production process but it's  
4 also toxic to chemists in the plant. So, this has to be avoided. We have set  
5 forth evidence of unexpected results.

6 If you go page four of the Examiner's answer, second-to-last  
7 line, there is a quotation from Antons and I would like to point out that it  
8 doesn't accurately reflect what Antons actually says.

9 If you go to column one, line 23, it doesn't say the problem of  
10 using ruthenium. It says, ruthenium containing catalysts are used. The  
11 reduction demand are for relatively high temperatures, very high pressures.  
12 Examples given, temperature of 145 to 190 degrees and pressures of 700 to  
13 950 bar. So, the skilled artisan would read this not as a teaching that  
14 ruthenium can't be used but that you can't use high pressure and high  
15 temperatures for optically active compounds.

16 And Antons indeed clearly teaches that ruthenium is the  
17 material to be used. So, there's no appreciation of the fact that under the  
18 process condition, decarbonization cannot occur because in all of the  
19 examples Antons uses the ruthenium material and then gives two  
20 comparative examples at the bottom of column four and at the beginning of  
21 column five where he uses metals, specifically rhenium, nickel and copper  
22 chromite.

23 We assume the teaching of Antons to be that ruthenium is the  
24 right catalyst material for doing reduction of optically -- to form optically  
25 active alcohols and the skilled artisan is aware that other materials, other  
26 catalyst materials may cause racemization which of course don't yield  
27 optically active compounds.

28 JUDGE GAUDETTE: It's agreed that Kitson does not  
29 explicitly teach optically active starting materials or optically active final  
30 product. But what is it that you believe is in Kitson that would indicate that  
31 you could not use optically active starting materials?

1 MR. HASSELMANN: I think it is known in the art that under  
2 certain processing conditions you can use optically active compounds. So,  
3 Kitson is completely void of any hint that --

4 JUDGE GAUDETTE: And how is it known in the art? Is that  
5 disclosed in Kitson or did you --

6 MR. HASSELMANN: No. Kitson -- he doesn't. There's no  
7 recognition. It doesn't recognize that racemization may appear -- he only  
8 uses non-optically active compounds. So, the starting materials in Kitson  
9 are different. He doesn't talk about --

10 JUDGE GAUDETTE: Well, I know but the Examiner's finding  
11 that Kitson doesn't preclude the use of optically active material. So, I'm  
12 wondering why you wouldn't think you could use it.

13 MR. HASSELMANN: Well, he doesn't teach that -- I mean, I  
14 think we have shown that optically active compounds have different  
15 structures than are the materials that are disclosed in Kitson.

16 JUDGE GAUDETTE: Well, right. He's just giving examples  
17 of materials.

18 MR. HASSELMANN: Yeah.

19 JUDGE GAUDETTE: I guess it's -- given the fact that Antons  
20 does use optically active starting materials under similar processing  
21 conditions and yes Antons is just using a ruthenium catalyst but I believe  
22 Kitson also uses ruthenium or alternatively palladium.

23 MR. HASSELMANN: Mm-hum. Yes.

24 JUDGE GAUDETTE: So, why would one skilled in the art not  
25 think that you could use one of these other catalysts with an optically active  
26 material?

27 MR. HASSELMANN: Well, Antons teaches this. He gives the  
28 example that use of other catalyst materials than ruthenium --

29 JUDGE GAUDETTE: Well, I think he only gave two different  
30 examples, different catalysts, and none of the included ones that were  
31 preferred by Kitson as being palladium and rhodium.

32 MR. HASSELMANN: Yeah.

1 JUDGE GAUDETTE: So, I don't think it's a teaching away  
2 from palladium and rhodium that I see.

3 MR. HASSELMANN: I think you can't use Kitson to prove the  
4 negative. I think you need a positive disclosure that you actually can do  
5 the -- can use optically active compounds without losing the optical activity  
6 of those. It's completely void of the fact. The artisan isn't directed to use  
7 this as a starting point for preparing optically active compounds. The  
8 starting materials are different plus they don't have the chemical structure  
9 that the optically active compounds have. He only talks about non-optically  
10 active starting materials.

11 In our opinion, it's unclear how you would get from the  
12 disclosure that only directed to the non-optically active compounds to  
13 something that actually obtains the optically activity of the starting material  
14 under these process conditions give high yields and also achieves -- avoids  
15 these high reactions that are known or other materials like ruthenium that is  
16 known in the art that causes the decarboxylation.

17 As a further point, we also provided some evidence of  
18 unexpected results which is the high rate of conversion, no occurrence of  
19 side products that are known from ruthenium.

20 JUDGE GAUDETTE: Where did that evidence come from?

21 MR. HASSELMANN: This was provided I believe in the  
22 second Office Action. We provided the table that directly compared the --

23 JUDGE GAUDETTE: Who put together the table?

24 MR. HASSELMANN: This is from the applicant, and we  
25 proffered --

26 JUDGE GAUDETTE: It's not in the specification?

27 MR. HASSELMANN: No.

28 JUDGE GAUDETTE: And there's no declaration?

29 MR. HASSELMANN: We offered to provide one but we've  
30 never been asked to do so. So, the evidence wasn't considered by the  
31 Examiner.

32 (Pause.)

1 MR. HASSELMANN: I'm not sure if I'm correct. So, you said  
2 the Examiner alluded to this or the Examiner stated that there are optically  
3 active compounds in Kitson. I don't have to go back to this point?

4 JUDGE GAUDETTE: No. I think she backed off of that  
5 position.

6 MR. HASSELMANN: It's in the Examiner's answer?

7 JUDGE GAUDETTE: In the answer, yes. I think it's, Kitson's  
8 filing does not discuss optically active carboxylic acids starting materials nor  
9 the optically active final product. So, she does kind of agree with you on  
10 that.

11 MR. HASSELMANN: Page five of the Examiner's answer, it's  
12 a -- it wasn't clear.

13 JUDGE GAUDETTE: I was referring to page eight.

14 MR. HASSELMANN: Okay.

15 JUDGE GAUDETTE: Thank you.

16 JUDGE HANLON: Any further questions?

17 (No response.)

18 JUDGE HANLON: Thank you.

19 MR. HASSELMANN: Thank you very much.

20 (Whereupon, at approximately 9:17 a.m., the proceedings were  
21 concluded.)

22 \* \* \* \* \*